

External Anatomy

Prior to beginning dissection note the following structures...

Carapace
Swimmerets
Rostrum
Walking Legs
Antenna
Eyes
Tail fan
Thorax
Abdomen

Internal Anatomy Dissection Instructions

1. Place the specimen in the dissecting tray dorsal side up.
2. Insert the scissors under the top of the carapace at the back of the head region and cut up the middle to the rostrum.
3. Cut across the carapace just back behind the eyes and remove the two pieces of the carapace carefully. Do not pull the carapace back too quickly you could risk upsetting the organs underneath.
4. The feathery gills should be exposed after removing the carapace. Label the gills on the diagram.
5. Remove the exposed gills and the legs attached to the thorax (middle) portion of the crayfish.. Separate the dorsal layer of muscles from the thorax. The heart is the light colored structure underneath the muscles. Label the heart on the diagram.
6. Remove the heart. There are two light colored structures on each side of the body extending into the head these are the digestive glands. Label the digestive glands.
7. Between the digestive glands are a pair of small white reproductive organs in the male crayfish. If the crayfish is female there will be a dark colored mass of eggs. Label these structures on the diagram and identify if your specimen is male or female.
8. Insert the scissors underneath the carapace of the abdomen and cut back to the tail fan. Spread the carapace carefully. The intestine is the tube on top of the abdomen muscle. Label the intestine in the diagram.
9. Trace the intestine towards the thorax, where it meets the large stomach. Label the stomach.

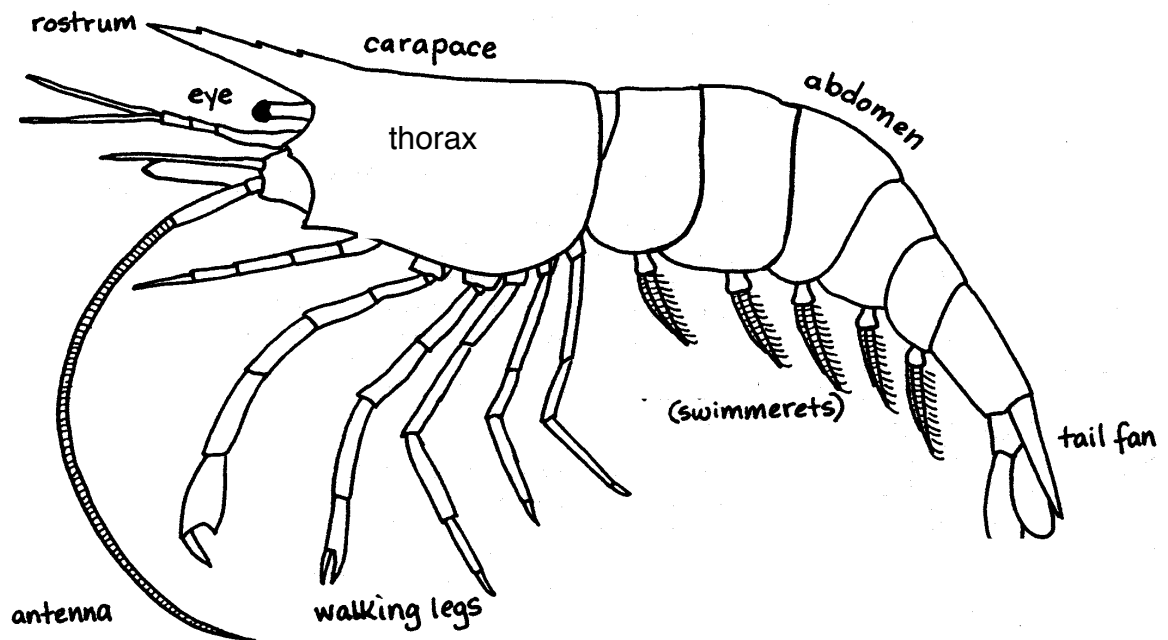
10. Remove the organs of the thorax by cutting the esophagus below the stomach and muscle bands holding the stomach just in back of the eyes.
11. Remove the remaining tissue in the head region to see the kidneys, which appear to be green structures. Label the kidneys.
12. Towards the front of the head, between the eyes is a small white brain. Label the brain on the diagram. Notice the nerves that extend from the brain to the antennae and eyes.
13. Cut through the tissue on the bottom of the thorax region with a scalpel to view the ventral nerve cord in back of the brain toward the abdomen. Label the nerve cord.

Be sure that by the end of the dissection you have removed the following organs, placed them on white paper and labeled them...

Carapace	Antenna
Swimmeret	Walking Legs
Gills	Brain
Digestive Gland	Heart
Kidney	

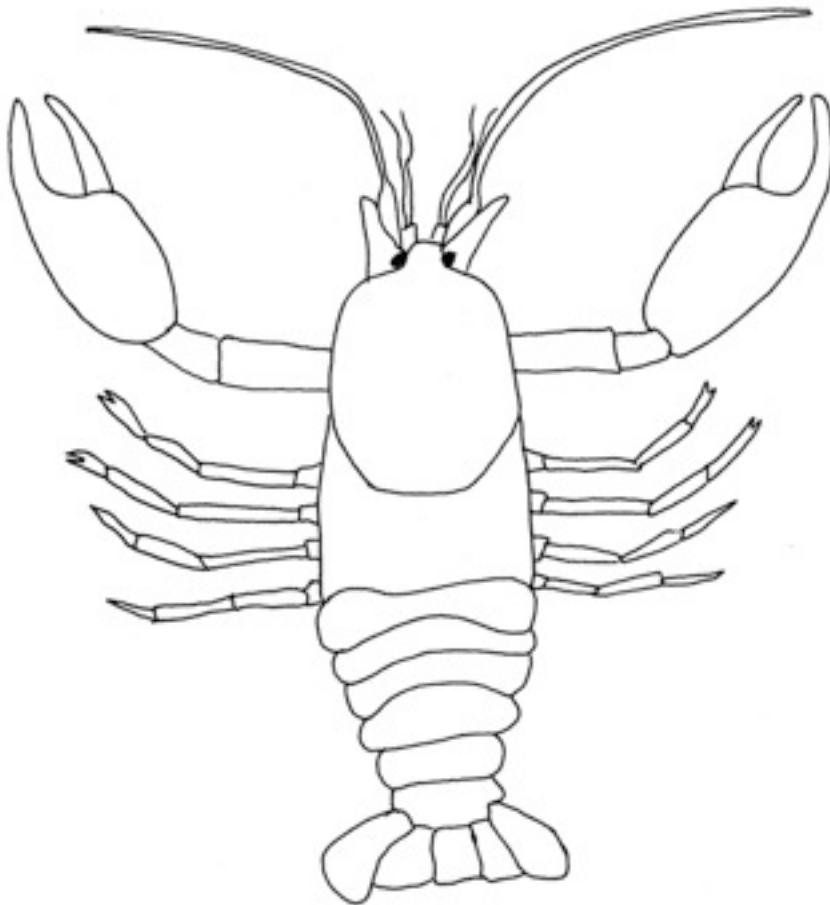
Also be sure to draw the structures into the blank outlines provided when the lab sheet asks you to. Remember that you will be teaching the class all about sea stars and should make sure to take pictures, and draw a diagram where you think it will be appropriate. The teacher will make copies of the diagrams/information you feel is important to distribute to the class.

External Anatomy to Note:

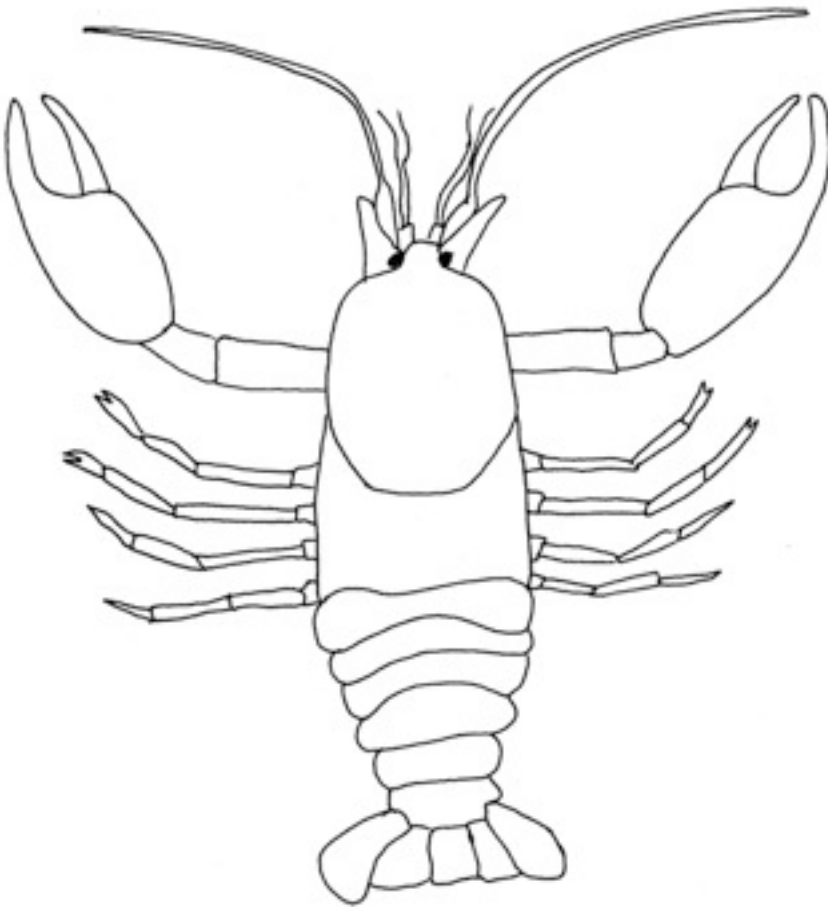


Internal Anatomy to be Labeled

Label gills.



Label Heart, Digestive Glands, Reproductive Organs, Stomach, Intestine.



Label Kidneys, Brain, Ventral Nerve Cord.

